



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2021-1169; Project Identifier AD-2021-01011-T; Amendment 39-22008; AD 2022-08-05]**

**RIN 2120-AA64**

#### **Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain The Boeing Company Model 737-800 series airplanes. This AD was prompted by the determination that insufficient sealing may allow water to enter the lower lobe electronic equipment (EE) bay through the main deck floor structure at the rigid cargo barrier (RCB), which could cause damage to EE bay line replacement units (LRUs) in the E5 rack. This AD requires detailed inspections for the presence and condition of sealant at certain locations and applicable on-condition actions. This AD also requires replacing the moisture barrier tape at a certain location, replacing the weather seal at a certain location, and installing seat track fillers. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1169.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-1169; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Courtney Tuck, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3986; email: [courtney.k.tuck@faa.gov](mailto:courtney.k.tuck@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 737-800 series airplanes. The NPRM published in the *Federal Register* on January 26, 2022 (87 FR 3946). The NPRM was prompted by the determination that insufficient sealing

may allow water to enter the lower lobe EE bay through the main deck floor structure at the RCB, which could cause damage to EE bay LRUs in the E5 rack. In the NPRM, the FAA proposed to require detailed inspections for the presence and condition of sealant at certain locations and applicable on-condition actions. The NPRM also proposed to require replacing the moisture barrier tape at a certain location, replacing the weather seal at a certain location, and installing seat track fillers. The FAA is issuing this AD to address water ingress in the lower lobe EE bay, which could result in water damage to the air data inertial reference units and flight management computers during flight, leading to a complete loss of data to primary flight displays and electronic navigation functions, which could prevent continued safe flight and landing.

## **Discussion of Final Airworthiness Directive**

### **Comments**

The FAA received comments from Air Line Pilots Association, International (ALPA), Boeing, and an individual, who supported the NPRM without change.

The FAA received an additional comment from Aviation Partners Boeing (APB). The following presents the comment received on the NPRM and the FAA's response to the comment.

### **Effect of Winglets on Accomplishment of the Proposed Actions**

APB stated that the installation of winglets per Supplemental Type Certificate (STC) ST00830SE does not affect compliance with the mandated actions in the proposed rule.

The FAA agrees with the commenter. Therefore, the installation of STC ST00830SE does not affect the ability to accomplish the actions required by this AD. The FAA has not changed this AD in this regard.

## Conclusion

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this AD as proposed. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

## Related Service Information under 1 CFR Part 51

The FAA reviewed Boeing Alert Requirements Bulletin 737-53A1401 RB, dated April 27, 2021. This service information specifies procedures for detailed inspections of the forward main deck cargo compartment floor to RCB, floor panel joints, drain troughs, seat track splices, and, for some airplanes, the lower lobe E5 rack drain pan shroud for sealant condition and application, and applicable on-condition actions. This service information also specifies procedures for replacing the main deck cargo door weather seal, replacing the moisture barrier tape on the forward main deck cargo compartment floor, and installing seat track fillers in the EE bay. On-condition actions include repair, removing existing sealant, and applying new sealant. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

## Costs of Compliance

The FAA estimates that this AD affects 7 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs				
Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspect sealant	Up to 12 work-hours X \$85 per hour = Up to \$1,020	\$0	Up to \$1,020	Up to \$7,140
Remove/reinstall drain trough	Up to 15 hours X \$85 per hour = Up to \$1,275	Negligible	Up to \$1,275	Up to \$8,925

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replace weather seal	Up to 7 work-hours X \$85 per hour = Up to \$595	\$9,680	Up to \$10,275	Up to \$71,925
Replace barrier tape	Up to 20 work-hours X \$85 per hour = Up to \$1,700	Negligible	Up to \$1,700	Up to \$11,900
Install seat track filler	Up to 2 work-hours X \$85 per hour = Up to \$170	Negligible	Up to \$170	Up to \$1,190

The FAA estimates the following costs to do any necessary replacements that would be required based on the results of the inspection. The agency has no way of determining the number of aircraft that might need these replacements:

#### **On-condition costs**

Action	Labor cost	Parts cost	Cost per product
Install or replace sealant	26 work-hours X \$85 per hour = \$2,210	Negligible	\$2,210

The FAA has received no definitive data on which to base the cost estimates for the on-condition actions specified in this AD.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators

#### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 737-800 series airplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin 737-53A1401 RB, dated April 27, 2021.

**(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by the determination that insufficient sealing may allow water to enter the lower lobe electronic equipment (EE) bay through the main deck floor structure at the rigid cargo barrier, which could cause damage to EE bay line replacement units in the E5 rack. The FAA is issuing this AD to address water ingress in the lower lobe EE bay, which could result in water damage to the air data inertial reference units and flight management computers during flight, leading to a complete loss of data to primary flight displays and electronic navigation functions, which could prevent continued safe flight and landing.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Actions**

Except as specified by paragraph (h) of this AD: At the applicable times specified in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 737-53A1401 RB,

dated April 27, 2021, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 737-53A1401 RB, dated April 27, 2021.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 737-53A1401, dated April 27, 2021, which is referred to in Boeing Alert Requirements Bulletin 737-53A1401 RB, dated April 27, 2021.

**(h) Exceptions to Service Information Specifications**

(1) Where the Compliance Time column of the tables in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 737-53A1401 RB, dated April 27, 2021, uses the phrase “the original issue date of Requirements Bulletin 737-53A1401 RB,” this AD requires using “the effective date of this AD.”

(2) Where Boeing Alert Requirements Bulletin 737-53A1401 RB, dated April 27, 2021, specifies contacting Boeing for repair instructions: This AD requires doing the repair using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

**(i) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.



(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

**(j) Related Information**

For more information about this AD, contact Courtney Tuck, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3986; email: courtney.k.tuck@faa.gov.

**(k) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Alert Requirements Bulletin 737-53A1401 RB, dated April 27, 2021.

(ii) [Reserved]

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on April 4, 2022.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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